

Freezing Shells

Lightweight, plastic shells for use with static, blast, ULT freezers, and controlled rate freezing chambers for bulk drug freezing applications

For those looking to improve efficiency, throughput, and future total cost of ownership in -80°C (-112°F) bulk drug substance freezing and transport applications without incurring large upfront capital costs, combining the superior properties of Entegris' Aramus™ bags as the primary product contact in conjunction with an easy-to-use, light weight, economic secondary containment solution is key to success. As an extension our freeze/thaw ecosystem of single-use materials and services, we introduce our bioprocess blast freezing shells. These polycarbonate (PC) shells enable optimal control in the blast freezing process and state-of-the-art protection for storage and transport of biological materials.

Our PC shells are compatible with commercially available blast/static/lab freezing systems enabling more rapid and efficient freeze processing. They have a stackable design to significantly improve space efficiency and are configured for optimal scale-up. They assure product quality by providing enhanced protection for high-value materials and intermediates in freeze/thaw processes, storage and shipment, bulk product filling, and in cold-chain transport.

APPLICATIONS

- Bulk drug freezing, storage, and shipment
- Protection and storage of high-value intermediates
- Bulk product fill
- Cold-chain transport



Available as beta-release products for sampling and advanced application testing ahead of commercial launch in 2023.

FEATURES & BENEFITS

Robust design	Provides protection down to -85°C (-121°F) for high-value process fluids, reducing product loss and increasing yield
Stackable design	Provides storage efficiency, saving valuable freezer space
Compatible with commercially available freezers	Enables easy integration into existing processes
Ergonomic handle	Is easy to use and allows convenient handling and flexibility to fill in various manners due to accessibility to the bag
Sustainable product	Reusing the shells with new bags or easily recycling when ready to dispose reduces waste
Closed system	Provides an economical, lower cost solution for existing freezer infrastructures



SPECIFICATIONS

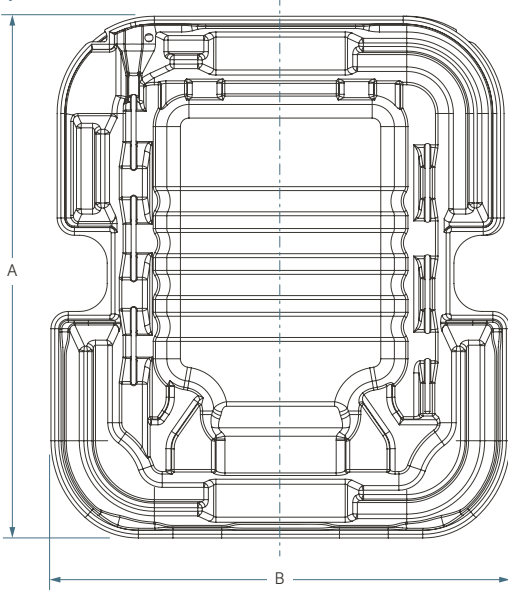
Materials of construction	Polycarbonate (PC)	
Estimated operating temperature	-85° to 40°C (-121° to 104°F)	
Gamma sterilizable	Yes	
Shell sizes	2 L, 5 L	
Fill volume range*	2 L shell	1 to 2 L
	5 L shell	2.5 to 5 L
Shell weight	2 L	1.5 kg (3.4 lb)
	5 L	2.2 kg (4.9 lb)

*Fill volumes are estimates pending completion of verification testing.

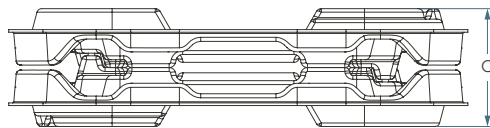
DIMENSIONS

2 L Freezing Shell

Top View

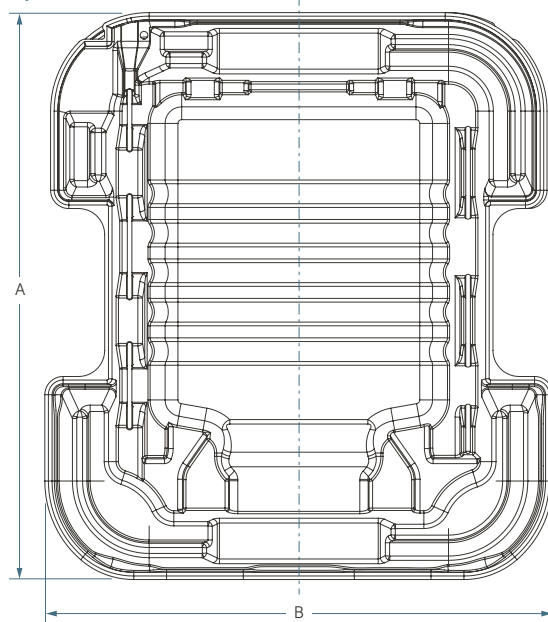


Side View

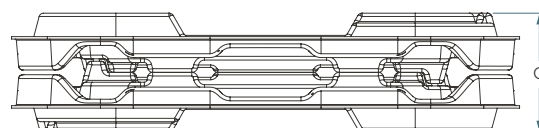


5 L Freezing Shell

Top View



Side View



Size	A	B	C
2 L	505 mm (19.9")	445 mm (17.5")	114 mm (4.5")
5 L	584 mm (23.0")	523 mm (20.6")	122 mm (4.8")

ORDERING INFORMATION

Part number	Shell size
SU-PB-000S1	2 L
SU-PB-000M1	5 L

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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